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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,393	07/30/2001	Roger David Benning	14-11-6	9975

7590

02/09/2005

Docket Administrator (Rm. 3J-219)
Lucent Technologies Inc.
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

EXAMINER

UBILES, MARIE C

ART UNIT

PAPER NUMBER

2642

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,393

Applicant(s)

BENNING ET AL.

Examiner

Marie C. Ubiles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/13/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. In the related application (page 1), the U.S. Application Serial numbers should be provided. The U.S. Application Serial numbers are –in order–: 09/918,391, 09/918,392 and 09/918,086.

Claim Objections

2. Claim 6 is objected to because of the following informalities: in line 6 “a phase swept signal S (1b)” is recited, the limitation should read “a phase swept signal s1(a)”. Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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4. Claims 1, 6, 11 and 16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 7, 13 and 19 of copending Application No. 09/918,392.

Claims 1, 6, 11 and 16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 14 of copending Application No. 09/918,086.

Claims 1, 6, 11 and 16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 10, 19 and 28 of copending Application No. 09/918,391.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 6, 11 and 16 of the instant application merely broadens the scope of the claims 1, 7, 13 and 19 of the co-pending Application No. '392, claims 1 and 14 of copending Application No. 09/918,086, and 1, 6, 11 and 16 of copending Application No. '391 by eliminating the elements and their functions of claims 1, 4, 7, 10, 13, 16, 19 and 22 of the co-pending Applications '392, '386 and '391.

It has been held that the omission an element and its function is an obvious expedient if the remaining elements perform the same function as before. In re Kadson, 136 USPQ 184 (CCPA). Also note Ex parte Rainut 168 USPQ 375 (Bd.App.1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

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Regarding claims 1 and 6 of the instant application, the limitation of phase sweeping s1(b) and s1(a) is recited in claims 1 and 7 of co-pending U.S. application '392 and claims 1 and 14 of co-pending U.S. application '086.

Further, the limitation of adding the signal s1(a) to a signal s2 to produce a summed signal s3 of the instant application is different from the limitation of adding the phase swept signal s2(a) to the signal s1(b) to produce a summed signal s3 of the co-pending application U.S. '391. However, the phase swept signal s2(a) is generated from the signal s2(a). Therefore, it would have been obvious to one skill in the art to produce a summed signal from the signal s2(a) or a phase swept signal s2(a) and the signal s1(b).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutierrez et al. (*IEEE, An Introduction to PSTD for IS-95 and cdma 2000*) in view of Dent (US 5,584,057).

As for claim 1, Gutierrez et al. discloses splitting a signal $s(1)$ into signals $s(1a)$ and $s(1b)$ (i.e. "the signal is split into two paths")(See "Splitter" in Fig. 1 and Page 1358, Col. 2, lines 10-11); and phase sweeping the signal $s(1b)$ using a phase sweep frequency signal to produce a phase swept signal $s(1b)$ (See Page 1358, Col. 2, lines 12-16).

It can be seen that Gutierrez system lacks the limitation "wherein the signal $s1$ is split unevenly such that the signal $s(1a)$ has an associated power level greater than a power level associated with the signal $s(1b)$ "

Dent teaches "Since mobile stations in CDMA systems can transmit on the same frequency at the same time signals received at the base station having relatively high signals strengths tend to interfere with those having lower signal strengths. [...] Greatest capacity in CDMA systems can be obtained when the power used to transmit to a mobile station on the downlink is tailored according to the distance from the mobile station to the center of the cell since this will reduce interference. Higher power is transmitted to mobile stations further away while lower power is transmitted to those mobile station near the cell center. The consequence of this technique, called power tampering, is that weaker signals will be more sensitive to interference from energy in

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the adjacent channels than will be the stronger channels.” (See Col. 1, lines 46-50 and Col. 2, lines 5-13).

In regards to the teachings of Den, first, his system teaches that it is common for CDMA systems to transmit at different power levels based on the distance of the mobile station to the base station; thus it would have been obvious to one of ordinary skill splitting a transmission signal at the base station in power levels necessary to comply with power tampering technique. Secondly, Dent's system identify as a problem the interference caused by relatively high strength signals to which the lower strength signals are subjected when both signals are transmitted over the same frequency at the same time.

Based on the teachings of Dent, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to solve the problem identified by Dent by phase sweeping the split signals with different frequencies, as disclosed by Gutierrez' system and thus in this manner decrease the possibility of interference between higher and lower strength signals.

As for claim 2, Gutierrez et al. discloses, amplifying the signal s(1a) to produce an amplified signal s(1a); and amplifying the phase swept signal s(1b) to produce an amplified phase swept signal (See Page 1358, Col. 2, lines 16-18).

Regarding claims 3-5, the Examiner believes the claimed limitations are non critical to the invention, and that may read for example on “power tampering”, or the

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necessity to adjust transmission power based on the distance of base and mobile stations.

Claim 6 is rejected for the same reasons as claim 1.

Claim 7 is rejected for the same reasons as claim 2.

Claims 8-10 are rejected for the same reasons as claims 3-5.

Apparatus claims 11 and 16 are rejected for the same reasons as claim 1.

Apparatus claims 12-15 and 17-20 are rejected for the same reasons as claims 2-5.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dabak (US 6,594,473) teaches a transmitter having multiple transmit antennas and SSTF encoders.

Ylitalo et al. (US 6,788,661) teaches an adaptive beam time coding method and apparatus.

Chheda et al. (US 6,704,370) teaches an encoder, interleaver and splitter design for increasing system capacity.

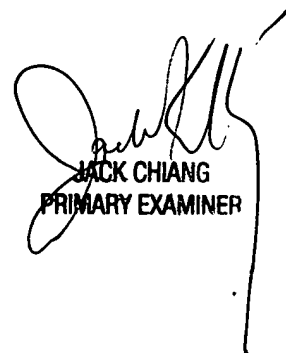
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie C. Ubiles whose telephone number is (703) 305-0684. The examiner can normally be reached on 8am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marie C. Ubiles
February 5, 2005.



JACK CHIANG
PRIMARY EXAMINER